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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/532,907	03/21/2000	Douglas J. Holmi	02103-36601	6793

26162 7590 06/20/2006

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EXAMINER

SWERDLOW, DANIEL

ART UNIT PAPER NUMBER

2615

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/532,907	HOLMI ET AL.	
	Examiner	Art Unit	
	Daniel Swerdlow	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006 and 15 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 April 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 18 through 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Clark et al. (US Patent 5,754,644).
4. Regarding Claim 18, Clark discloses a vehicle audio system for an automobile having a passenger compartment with front and rear (i.e., a plurality of) seats (Fig. 4) comprising: an audio source and differential receiver arrangement (Fig. 9, reference 12, 100) that corresponds to the audio signal source claimed and has a plurality of output channels (Fig. 9, reference 102, 103, 104, 105; column 7, lines 1-14) including a left rear output (102) that corresponds to the surround output channel claimed (column 7, lines 60-67); and loudspeakers (18, 24) that correspond to the first plurality of electroacoustical transducers claimed, are substantially identical (column 4, lines 41-44) and reproduce (i.e., radiate sound waves corresponding to) the left rear output (102) that corresponds to the surround output channel claimed (column 8, lines 9-31, 52-56), wherein each of the front and rear seats that correspond to the plurality of seats

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claimed is positioned forward of and substantially identically relative to a corresponding loudspeaker (18, 24) that corresponds to one of the first plurality of electroacoustical transducers claimed. Specifically, the front seat is positioned forward of and beneath speaker 18 while the rear seat is positioned forward of and beneath speaker 24 with the speakers directed in the direction of their corresponding seats.

5. Regarding Claim 19, Clark further discloses the loudspeakers (18, 24) that correspond to the first plurality of electroacoustical transducers claimed are coupled to the left rear output (102) of audio source and differential receiver arrangement (Fig. 9, reference 12, 100) that corresponds to the audio signal source claimed by a single equalizer (144) (column 8, lines 24-31, 44-56). The path from equalizer 144 to loudspeaker 18 is via delay 150 and amplifier 156. The path from equalizer 144 to loudspeaker 24 is via delay 170 and amplifier 176.

6. Regarding Claim 20, Clark further discloses loudspeakers (20, 25) that correspond to the second plurality of electroacoustical transducers claimed and reproduce (i.e., radiate sound waves corresponding to) the right rear output (102) that corresponds to the right surround output channel claimed (column 8, lines 9-31, 52-56), wherein the loudspeakers (20, 25) are positioned similarly to loudspeakers 18 and 24, but on the right side of the automobile and, as such each of the front and rear seats that correspond to the plurality of seats claimed is positioned forward of and substantially identically relative to a corresponding loudspeaker (20, 25) that corresponds to one of the second plurality of electroacoustical transducers claimed. Specifically, the front seat is positioned forward of and beneath speaker 20 while the rear seat is positioned forward of and beneath speaker 25 with the speakers directed in the direction of their corresponding seats.

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7. Regarding Claim 21, Clark further discloses the loudspeakers (18, 24) that correspond to the first plurality of electroacoustical transducers claimed are coupled to the left rear output (102) of audio source and differential receiver arrangement (Fig. 9, reference 12, 100) that corresponds to the audio signal source claimed by a single equalizer (144) and the loudspeakers (20, 25) that correspond to the second plurality of electroacoustical transducers claimed are coupled to the right rear output (102) of audio source and differential receiver arrangement (Fig. 9, reference 12, 100) that corresponds to the audio signal source claimed by a single equalizer (146) (column 8, lines 24-31, 44-56). The path from equalizer 144 to loudspeaker 18 is via delay 150 and amplifier 156. The path from equalizer 144 to loudspeaker 24 is via delay 170 and amplifier 176. The path from equalizer 146 to loudspeaker 20 is via delay 152 and amplifier 154. The path from equalizer 146 to loudspeaker 25 is via delay 172 and amplifier 180.

Response to Arguments

8. Applicant's arguments filed 26 April 2006 have been fully considered but they are not persuasive.

9. Applicant alleges that Clark fails to teach a surround channel as claimed. Examiner respectfully disagrees. As shown in the rejections above, Clark discloses a left rear channel and a right rear channel that augment the front staging from the left front and right front channels to provide "surrounding ambience simulating a listening area substantially larger than that of the interior of a vehicle" (column 1, lines 8-12). As such, the rear channels constitute surround channels. Evidence of this is found in US Patent 5,742,691 to Ambourn. Ambourn discloses a surround sound converter for an automotive stereo (Fig. 3; column 1, lines 57-66) that provides

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left and right rear outputs to augment the regular left and right outputs of a stereo source in order to provide “a three-dimensional surround sound image”. As such, it is clear that left and right rear channels are responsible for surround sound perception and can be considered “surround channels” as claimed. The citation of US Patent 5,742,691 to Ambourn is as evidence that the rear channels disclosed in Clark are “surround channels” as that term would be understood by one of ordinary skill in the art at the time of the invention. As such, Ambourn does not constitute relied-upon prior art or a new ground of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow
Primary Examiner
Art Unit 2615

ds

16 June 2006